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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,091	11/14/2003	Perry John Underwood	007287-0306844	8232
909	7590	04/20/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			ROJAS, BERNARD	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2832	

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,091

Applicant(s)

UNDERWOOD ET AL.

Examiner

Bernard Rojas

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11142003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, 11, 15, 16, 18-22 and 24 are 35 U.S.C. 102(b) as being anticipated by Baermann [US 4,055,824].

Claim 1, refer to figure 1, Baermann discloses a switchable magnetic device comprising a housing [7, 8] having a low magnetic reluctance path [7], a first permanent magnet [1] and a second permanent magnet [3] being diametrically polarized. The first and second magnets are mounted in the housing such that they are rotatable relative to each other. Actuation means for causing the rotation [13, 14]. The device presents a strong external magnetic field when the north pole and south pole of the first magnet are in substantial alignment with the respective north pole and south pole of the second magnet. The device presents a weak external magnetic field when the north pole of the first magnet is in substantial alignment with the respective south pole of the second magnet and visa versa [abs].

Claim 2, Baermann discloses that the first and second magnets are substantially disc-shaped [figure 1].

Claim 3, see figure 1. Baermann discloses that the first and second magnets are mounted in a housing such that a face of the first magnet is opposed to a face of the second magnet.

Claim 5, Baermann discloses that one magnet [1] is fixedly mounted in the housing and the other magnet [3] is able to rotate within the housing

Claim 6, Baermann discloses that the other magnet is rotated 180° to vary the device state from having a strong external magnetic field to a weak magnetic field [abs].

Claim 7, refer to figure 1, Baermann discloses a switchable magnetic device comprising a housing [7, 8] constructed of two pole pieces [7] a first permanent magnet [1] and a second permanent magnet [3] being diametrically polarized. The first and second magnets are mounted in the housing such that they are rotatable relative to each other. Actuation means for causing the rotation [13, 14] of the magnets relative to each other. The device presents a strong external magnetic field when the north pole and south pole of the first magnet are in substantial alignment with the respective north pole and south pole of the second magnet. The device presents a weak external magnetic field when the north pole of the first magnet is in substantial alignment with the respective south pole of the second magnet and visa versa [abs].

Claim 11, Baermann discloses that the housing defines a chamber in which the first and second magnets are mounted.

Claim 15, Baermann discloses that the chamber has closed ends [figure 1].

Claim 16, Baermann discloses the housing is made from a material having a low magnetic reluctance [col. 4 lines 11-15].

Claim 18, Baermann discloses that the pole pieces are shaped to maximize the external magnetic field by providing a large surface area that covers the face of the magnets [figure 1].

Claim 19, Baermann discloses that the pole are of minimum length.

Claim 20, Baermann discloses that the actuation means comprises a handle [14] connected to one of the magnets.

Claim 21 Baermann discloses that the handle is connected to one of the magnets via one or more intermediate members [13].

Claim 22, Baermann discloses that the knob is actuated manually [col. 5 lines 43-46].

Claim 24, Baermann discloses a switchable magnetic device comprising a housing [7,8], a first permanent magnet [1] and a second permanent magnet [3]. The first and second permanent magnets being *essentially* cylindrically shaped and also being diametrically polarized [figure 1]. The first and second permanent magnets being mounted within housing such that the first and second permanent magnets are rotatable relative to each other [figure 1, abs] and actuation means [13, 14] for causing relative rotation of the first and second permanent magnets. Wherein the device presents a relatively strong external magnetic field when the first and second permanent magnets are positioned relative to each other such that a north and south poles of the first magnet are in substantial alignment with the respective north and south poles of the second magnet, and the device presents a relatively weak external magnetic field the first and second permanent magnets are positioned relative to each other such that the north

pole of the first magnet is in substantial alignment with the south pole of the second magnet and visa versa [abs].

Claims 1, 4 and 7-14 are 35 U.S.C. 102(b) as being anticipated by Baermann [US 4,419,644].

Claim 1, refer to figures 5 and 6, Baermann discloses a switchable magnetic device comprising a housing [1] having a low magnetic reluctance path [3], a first permanent magnet [10] and a second permanent magnet [7] being diametrically polarized. The first and second magnets are mounted in the housing such that they are rotatable relative to each other. Actuation means [19] for causing the rotation. The device presents a strong external magnetic field when the north pole and south pole of the first magnet are in substantial alignment with the respective north pole and south pole of the second magnet. The device presents a weak external magnetic field when the north pole of the first magnet is in substantial alignment with the respective south pole of the second magnet and visa versa [abs].

Claim 4, Baermann discloses that one magnet [10] is positioned above the other [7].

Claim 7, refer to figure 1, Baermann discloses a switchable magnetic device comprising a housing [1,2] constructed of two pole pieces [1, 2] a first permanent magnet [1] and a second permanent magnet [3] being diametrically polarized. The first and second magnets are mounted in the housing such that they are rotatable relative to each other. Actuation means for causing the rotation [13, 14] of the magnets relative to

each other. The device presents a strong external magnetic field when the north pole and south pole of the first magnet are in substantial alignment with the respective north pole and south pole of the second magnet. The device presents a weak external magnetic field when the north pole of the first magnet is in substantial alignment with the respective south pole of the second magnet and visa versa [abs].

Claim 8, Baermann discloses that the housing is made as a unitary construction [figure 6].

Claim 9, Baermann discloses that two portions of the housing have a reduced cross sectional area [figure 5].

Claim 10, Baermann discloses that portions of the housing [3] are non-magnetic thereby separating the housing into two passive poles.

Claim 11, Baermann discloses that the housing defines a chamber in which the first and second magnets are mounted [figures 1 and 6].

Claim 12, Baermann discloses that the chamber has open ends [figure 6].

Claim 13, Baermann discloses that one or more chambers closing means [18] close one or more open end of the chamber.

Claim 14, Baermann discloses that a lower most of the first magnet and the second magnet closes a lower end of the chamber [figure 1].

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baermann [US 4,055,824].

Claim 17, Baermann discloses the claimed invention except for the material used to construct the housing. It would have been an obvious matter of design choice to construct the housing from soft steel, iron or permalloy, since applicant has not disclosed that use of one of these particular high magnetic permeability materials solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any material that has a high magnetic permeability.

Claim 23, Baermann discloses the claimed invention except for the use of rare earth permanent magnets. It would have been an obvious matter of design choice to use a rare earth permanent magnet, since applicant has not disclosed that using a rare

earth permanent magnet solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any permanent magnet.

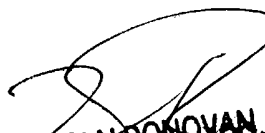
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Br


LINCOLN DONOVAN
PRIMARY EXAMINER
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